It is believed that these temples were erected towards the end of the 12th century.* Java, doubtless, presents a vast field for antiquarian researches, as well as, indeed, all the large islands of the Indian Archipelago.

Java was first visited by the Portuguese in 1511, who soon after began to make settlements. In 1595 the Dutch settled at Bantam, a place now of no importance, and in 1602 the English built a factory at the same place. This was the first possession of Great Britain in the East Indies. The Dutch, however, were the most powerful there, and the English and Portuguese were obliged to yield to them. Having built Batavia, the Dutch by degrees extended their dominion in the island, until, about the middle of the last century, they succeeded in dividing the native Susuhunan empire into two parts, and appropriating the greater portion of it to themselves. The two sovereigns became, at the same time, dependent on the Dutch government, and have since been obliged to sell to them, at fixed and low prices, large quantities of the products of the island. The Dutch also claim the right of confirming the successors of the sultans. The Dutch, for a long time, carried on incessant wars with the native princes, and owe all of their possessions to conquest.

In this paper we give the readers of the Review a sketch of the two most important islands of the East Indian Archipelago, commercially considered. In a future paper we propose to give an account of Borneo, Celebes, and the lesser Sunda islands.

Art. III.—VALLEY OF THE AMAZON.

No. III.

TRIBUTARIES OF THE AMAZON; THEIR NAVIGABILITY—EXPLORATION OF THE AMAZON BY AN AMERICAN MAN-OF-WAR STEAMER—THE TOCANTINS—GOYAZ—SALT WORKS—LAKE OF PEARLS—DYE-STUFFS—SUGAR-CANE—COLLECTING GOLD—PRODUCTIONS; THEIR PRICES—EXPORTS—POLING UP THE RIVER—DESIGNS OF BRAZIL—VALUE OF COMMERCE WITH THE AMAZON—RECIPROCITY—LAWS OF NATURE—CONDITIONS WANTING IN BRAZIL WHICH MAKE A SEAFARING PEOPLE—A CONTRAST—EXTENT OF BACK COUNTRY TRIBUTARY TO THE ATLANTIC OCEAN GREATER THAN THAT TO THE PACIFIC—OUR ATLANTIC PORTS HALF-WAY HOUSES—FREE NAVIGATION OF THE AMAZON; HOW TO GET IT.

THE Amazon enters the Atlantic through a delta. The principal tributaries from the south which fall into this river are, commencing at its mouth, and going up, the Tocantins, the Chingu, the Tapajos, the Madeira, the Purus, the Tappe, the Hyuruba, the Hiutay, the Tavery, the Ucayali, and the Huallaga—none of them smaller than the Ohio, and some larger than the Missouri.

* Raffles' "History of Java." Crawfurd's "Indian Archipelago."

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From the north come the Rio Negro and the Japura, (two mighty streams,) the Putomayo, the Napo, the Tigré-Yacu, and the Pastaza.

I have spoken of the present commercial resources of the Madeira and the Huallaga from the information derived from Lieutenants Herndon and Gibbon, United States Navy, and from M. Castelnau. As to the present condition of the trade and resources of these other rivers, except the Tocantins, we are left very much in the dark or to conjecture.

All of them, we know, have falls and rapids of more or less velocity, which offer obstructions more or less difficult to steamboat navigation. Therefore as to the question of how far these rivers may be ascended by steamboats at low water, and how far at high, that must be left for actual trial to decide. I hope, therefore, the time is not distant when an American steamer or two will be sent to make a complete and thorough examination as to this point, and to explore that rich and interesting region of country, with a view to its commercial resources, both present and prospective.

In the present state of our information, we can judge of the actual resources of these several streams for trade and traffic by comparing those as to which we are in the dark with those which have been recently explored. As the type of the whole in this respect, therefore, I take the Tocantins.

As you enter the southern mouth of the Amazon, the mouth of the Tocantins is the first but one that you pass. It traverses more parallels of latitude than our Mississippi does; but it is a straighter, and therefore not so long a river. It takes its rise in the provinces of Matto Grosso and Goyaz, and drains these two provinces with that of Para. This river lies wholly within Brazilian territory, and was explored down to port Barra by Castelnau in 1843–4. From him, therefore, I derive my special information with regard to it.

It drains a gold and diamond country, which is also an exceedingly rich agricultural one. Its principal tributary is the Araguay; and it is a most noble stream. Speaking of parts of the valley of the Tocantins in which he was, Castelnau says: "I believe that this rich and valuable country will be found one of the most healthy in the world."

The city of Goyaz, with a population of seven or eight thousand, and the capital of its province, is situated on the Vermilho, celebrated for its golden sands. This river is about twenty steps wide opposite the city, and vessels from Para come up and make fast to the bridge below. The distance thence in a straight line to the mouth of the Amazon is rather under than over a thousand miles. The population of the whole province, more than two-thirds of which is in the valley of the Tocantins, is 125,000, of which 25,000 are slaves.

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There is a number of flourishing towns and villages on the water-shed of this river. Among these is Salinas, which derives its name from its salt-works.

Near by the salt lake of Salinas is the Lake of Pearls, surrounded by a beautiful vegetation, and numerously inhabited by aquatic birds. Nothing, says Castelnau, can give one "*une idée de la beauté de cette jolie pièce d'eau.*" Its waters are fresh, and it abounds with a shellfish which contains the pearl.

It was here that the *voyageurs* found such a variety of rare and useful plants; among them, one, the fruit of which is used to make ink, and it is an excellent substitute for nut-galls; another was a kind of cane, the roots of which make a yellow dye of the most exquisite hue. They obtained, wild from the forest, all the colors with which they painted the Brazilian flag that was hoisted during the descent of the Araguay, the principal tributary of the Tocantins, and far more beautiful than our *belle reviére* of the *West.*

They use for tanning the bark of a tree, with which the raw hide is converted into leather in a month. They have two varieties of manioc, of great beauty, which require little or no labor in cultivation. It is propagated by cuttings or slips; so also is the sugar-cane, which sends up from every joint a dozen stalks, and gives a crop in every eight months. The black bean, an essential article of food with the Brazilians, grows here in great perfection; it yields four crops a year. Two kinds of beautiful palms grow wild in the woods, which also furnish the natives with an abundant supply of wholesome food.

There have been in this province as many as one hundred thousand slaves employed at one time in collecting gold alone.

But, as rich in mines as this province is, its soil, with its productions, is much richer. It is well adapted to the cultivation of cotton and coffee, sugar and tobacco, of Indian corn, rye, wheat, and oats; of rice, indigo, pulse, and potatoes; manioc, nuts, ipecacuanha, sarsaparilla, vanilla, anatto, balsam, India rubber, and a great variety of gums, spices, ornamental woods, roots, drugs, and dye-stuffs.

The margins of the rivers afford pasturage and support to numerous herds of cattle and horses. Their waters abound in fish. Castelnau saw dolphins sporting in them.

Limestone and saltpetre caves, with salt lakes, add beauty to the country and variety to its resources; also, iron mines abound.

The mode of cultivation is rude and ruinous. The planters scratch the earth with a pick, sow, and at the end of a few months, says Castelnau, reap one or two hundred fold, more or

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less, according to the fertility of the soil, and the excellence of the season.

The ordinary prices are: for coffee, 3¾ cents the pound; seed cotton, 1 cent the pound; white sugar, 3 cents; tobacco, 4 cents; beef cattle, $2 to $3 the head; tanned hides, 65 cents apiece; green ditto, 20 cents.

The exports consist of these, besides calf, kid, otter, and ounce skins, with other products of the field, the forest, the river, and the mine.

The imports are fabrics of silk, wool, flax, and cotton, hats, salt, drugs, medicines, crockery, wine, brandies, farming implements, &c.

The voyage up the river from Para occupies about five months. The upward freight is four dollars the one hundred pounds; the downward, one dollar; and the first steamer has yet to be seen upon this majestic stream.

Here, then, is a river which enters the Amazon so near the sea that the water at its mouth is salt, and Brazil has not had the energy to put the first steamboat upon it. How then is it possible for her to travel three thousand miles up the mighty Amazon, and introduce the steamer upon the waters of Peru, as she has endeavored to persuade the government of Peru that she can?

The crew of one of these rude vessels that go poling up the Tocantins as far as Porto Imperial, consists of from twenty to thirty men. They take down, among other things, hides, which at Goyaz are worth fifty cents, and at Para sell for one dollar and fifty cents, and so of other things.

The banks of this river are said to be inhabited in some parts by hostile Indians; and this, it is said, is one of the causes of its rude navigation. But the steamboat would certainly not have more to fear from Indians than these unwieldy hulks of Brazil, as they go creeping along the coward shores.

There are a dozen other rivers emptying into the Amazon that drain water-sheds, which no doubt are as rich and as fertile as this.

We are entitled to infer, not only by reference to the Tocantins as a type of them, but by reference to the quantity of produce that goes to sea from the Amazon, that the valleys of its other tributaries are not behind that of the Tocantins. Produce enough comes down the Amazon to Para to give that city an annual trade, to and fro, of three millions of dollars.

Bolivia sent last year from her part of this great water-shed two million dollars' worth of Peruvian bark alone. But that went over the mountains to the Pacific. The steamboat would have brought it down the Amazon to the Atlantic. It would

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have brought business to Para, and added greatly to the wealth of Brazil and the prosperity of her people.

It certainly would be wisdom in Brazil were she to make not only the navigation of the Amazon free to all the world, but it would be politic in her to throw open to foreign commerce and navigation the Tocantins also, and all her other Amazonian tributaries.

The value of the trade up and down the Tocantins would be increased manyfold; the hostile Indians, which infest its banks and prevent their settlement, would be driven away; and lands that are now profitless, and produce that is valueless, would become profitable.

We admit the coffee of Brazil into our ports duty free. We are her best customer and friend, and it is quite time that Brazil had signalized her appreciation of this patronage and friendship by some sign or token at least that she too would be liberal in her policy.

Since the subjects of Brazil themselves have not judged it expedient to put a steamer on the Tocantins to go up after all this coffee, and rice, and sugar, and tobacco, &c., it certainly would be wise in her to permit citizens of the United States, or of France, or of England, to do it. They would gladly go up this river after this fine Goyaz coffee. Her subjects then would receive double the price they now receive for it, and the rest of their produce. Those of them who are employed in transporting this merchandise to the sea-board by water and by land, would then find more profitable employment in the cultivation of the soil. Double the price of the staples of a country, and you not only double the price of labor, but you greatly enhance the national wealth. Increase the substance of the subject, and you increase his power to pay taxes; and this, I imagine, is what Brazil wants.

But this river Tocantins lies wholly within Brazilian territory; she has the right to open it to the commerce of the world or not, as she pleases; and her action with regard to it is no just cause of complaint or offence to any nation.

Not so, however, when she keeps closed the Amazon, and endeavors, because she holds the mouth of that river, to shut it up, and to cut off those five Spanish-American republics which own navigable tributaries to it, from commerce with the world, and all the world from commerce with them.

There are physical agencies at work upon the great Atlantic slopes of South America which will for ages prevent its inhabitants from becoming a maritime people. The laws of nature have ordained that the people who dwell upon those slopes shall be tillers of the earth or keepers of flocks and herds. That wise

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law-giver never intended that men should forsake a land of milk and honey for the mariner's calling, where, after toil, hardship, danger, and exposure, he can only gain the means of a frugal subsistence from the sea.

Bread grows on trees in Brazil; honey is found in the woods; and there is a tree there, too, which, being tapped, yields abundantly a rich juice which the people use instead of milk. Nature has never yet put it into the heart of man to forsake such a land and take to the sea.

The sea-front of these beautiful slopes proclaims this same law of nature. It is written in the fields, whispered in the breeze, and felt in the climate.

The sea has no spell by which the enchantments of soft climates, fertile soils, cheap lands, and a healthy country, can be broken. It is necessity—and that, too, a necessity that is right stern—which induces a man to forsake the land and take to the sea for a living.

Among the conditions requisite to make the people of any country a seafaring people, are peculiarities of soil and climate, which make it easier for the working man to earn his bread at sea than it is on the land. These peculiarities do not exist in Brazil, and Brazil has no seamen. Only look whence the sailors come that now do the fetching and carrying across the seas. They come from the severe climates of the extra-tropical regions of the north, and not from the sunny climes of the south. They come from Old and New England, the north of Europe and of America. Who ever heard of our western people, who live in the Mississippi valley, sending out their sons before the mast to make sailors of?

It is too easy there to earn a living out of the soil. Much easier is it in the valley of the Amazon, where the plantain and the banana, the most nutritious of food, grow and ripen, and are prepared for the table, without even the care of the laborer to dress the plant or the viand—where rice grows wild, the sugar-cane ripens every eight months, and where food enough to support a population of millions is annually wasted for the want of laborers to gather it. How can the people of such a country ever become a seafaring people? What, short of the messengers of God's wrath, the famine, and the pestilence, could drive a people from such a land, or induce them to forsake it and follow the sea?

Another condition necessary to the establishment of seafaring communities, is the presence of the sea.

Contrast the rock-bound coast of South America—its stiff outlines, its want of articulation—the rigid, forbidding sea-front of its Atlantic slopes, with the waving sea-shores, their magnificent gulfs, their beautiful bays and harbors, with the capes,

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promontories, and peninsulas, of the northern maritime regions of the earth, and see how forcibly nature has proclaimed the fact, that the soil and the climate of Brazil forbid her people to follow the sea. When the dry land first appeared, it was ordained that a power of maritime habits was never to dwell where Brazil is.

Look at the Baltic Sea, the Mediterranean and the Black, which, with their arms and gulfs, stretch up into the heart of Europe, and by their presence invite the people to leave those over-populated districts and inhospitable climes, to roam over the sea, and visit the sunny spots of the earth.

Again, look in like manner in the northern hemisphere—at the Red Sea; the Persian Gulf; jutting out Hindostan, tipped with the pendent isle of Ceylon; the Bay of Bengal; the Straits of Malacca; the gulfs of Siam and Tonquin; the Yellow Sea, the seas of Japan and Oktask, winding along the shores, insinuating themselves among the people far back in the country, and with a coast-line wonderfully indented, inviting them out to sea—consider this, and then contrast this shore-line of North with the shore-lines of South America, South Africa, and New Holland. There is no articulation there, and nature never intended either of these three continents as the home of a maritime and seafaring people.

The same contrast holds between the bays, gulfs, bights, and peninsulas of North America, when you come to compare them with the straight lines which, in South America, divide the dry land from the sea. Nature, therefore, is against Brazil with her longings for maritime consequence. She must be content to let other nations fetch and carry for her. She can never have the shipping nor the men to carry her own produce to market. They have something better to do.

All of Europe, some of Asia, half of Africa, most of North America, and nine of the ten parts of South America are drained into the Atlantic. The three largest rivers in the world empty into it, and the largest river basins are tributary to it.

It is but as a narrow canal which separates Europe and Africa from the New World; and the amount of back country which through river basins and Atlantic slopes is tributary to this oceanic canal, must for ever send down to it an immense amount of produce and merchandise. The Atlantic Ocean is, therefore, destined to be forever the great scene of this world's business and of commerce; and the principal features in this arrangement of land and water, and distribution of river-basin and sea-highways, is the valley of the Amazon.

The winds and currents of the sea are so ordered, that, wherever the market place may be, every sailing vessel, as she passes to and fro between it and the mouth of the Amazon, must, either in coming or in going, pass by our doors.

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The Atlantic seaports of the United States are the half-way stations between the mouth of the Amazon and all the markets of the earth. The trade winds and the great equatorial current of the Atlantic have placed the commercial mouth of the Amazon in the Florida Pass, where they have placed that of the Mississippi. These two magnificent rivers unite at our feet, and pour their wealth along our shores.

For these and other reasons of import, the free navigation of the Amazon, and the settlement of its valley, become matters of deep interest to the world, and of especial interest to this country. Therefore, it is incumbent upon this country to take the initiative in opening the trade and navigation of that river to the world. The policy of commerce requires it, and the necessities of Christendom demand it.

Art. IV.—RESOURCES AND PROGRESS OF PHILADELPHIA.

MR. TYSON'S LETTER TO MR. PETER.

No. III.

THE temporary decline of Philadelphia commerce implies only the control of those mysterious agencies in the fate of communities, which are sometimes observable in the life of individuals. The causes themselves were casual, and future circumstances developing new elements of growth and large capacities of increase, proved that as the causes were transient, so the effects could not be permanent. We saw the thunder-cloud and felt the tempest; but we had not to mourn the fell fury of the lightning nor the destructive upheavings of the earthquake. The cloud once so black and threatening, was seen at length to reveal a silver edge, and the sun to peep through the crevices of its departing shadows. Perhaps these adverse events were only in fulfilment of our lot, since it is said by Jacob Taylor, the early astrologer and versifier of Pennsylvania, that his horoscope reflected propitious images of unmixed good fortune, except during a brief interval of evil:

> "An envious cloud may shade the smiling morn,
> Though fates *ordain the beaming sun's return.*"

The accumulated blessings of Pennsylvania show that no malignant planet presided at her birth, that no evil genius has woven the web of her destiny. Surpassingly rich in herself, independent of other States for the same cause, and furnishing in her great metropolis an outlet and mart to so many of her

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